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Tobacco expansion in Kenya – the socio-ecological losses

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Tobacco in Kenya – a historical perspective

The history of tobacco in Kenya dates back to 1907 when British American Tobacco (BAT) set up a marketing organisation with its base at Mombasa. The firm concentrated on building a distribution and marketing network throughout East Africa – in what now is Kenya, Uganda, Tanzania and Eastern Zaire.

Until 1928, BAT remained a distributor of imported cigarettes. However, the emergence of a strong East African market saw the firm make its first plant investment when it opened a factory in Jinja, Uganda. The factory was updated in 1948, becoming the most modern in the region. The following year, BAT acquired the Tanganyika- (now Tanzania mainland) based East African Tobacco (EAT) Company, which became the holding company of regional BAT Group companies for the next 15 years. In 1957, a modern tobacco and cigarette factory commenced operations in Nairobi, to serve "the special needs of a growing Kenyan market".

In the same year, BAT acquired the existing Rift Valley Cigarette Company, temporarily turning Nakuru into the hub of shag and smoking tobaccos in East Africa. In 1965, the EAT was reorganised and three separate BAT companies were established in Kenya, Uganda, and Tanzania. In 1966 Rothmans of Pall Mall (Kenya) Limited made an abortive entry, shutting down in 1967 after selling off its assets to BAT Kenya. A stronger BAT Kenya became a public firm quoted on the Nairobi Stock Exchange in 1969. The current composition of the shares comprise 20% government-owned, 20% owned by about 4500 individual Kenyans, and 60% by the parent British firm. BAT Kenya today manufactures 15 cigarette brands and three pipe tobacco varieties. It also distributes over 20 foreign cigarette brands in Kenya.

Leaf production

Until 1975, BAT Kenya depended largely on Tanzanian and Ugandan tobacco for the production of local brands. Local supplies in 1973 just exceeded 100 tonnes. BAT Kenya has since pursued a policy of promoting tobacco in appropriate areas by small-scale farmers. The growing areas are Malakisi in Bungoma/Busia districts in Western province; Mitunguu in Meru Oyani; Rongo; Suba Kuria; Taranganya in Migori and Homa Bay districts, close to the Kenya/Tanzania border on Lake Victoria; and Ena in Embu district.

The firm has no estates of its own. According to the 1992 Annual Report the company has 13 500 registered farmers, who produced 8743 tonnes (the US Department of Agriculture recorded 9910 tonnes for the same year[1]). Three varieties of tobacco leaf are grown: flue-cured virginia, dark fire-cured, and air-cured burley. Over the past two decades, Kenya has attained self-sufficiency in tobacco leaf production, leaving a surplus for export. Supported by over 300 extension officers, BAT Kenya supplies production inputs, including pesticides, fertilisers, seedlings, and loans for production.

In an as yet unpublished company-commissioned report, *The economic impact of the tobacco industry in Kenya*,[2] based on a survey by Agriconsult of Nairobi, BAT Kenya gets the credit for "over 13 million surviving trees". The report further credits the firm with encouraging "increased food production in growing areas through food-tobacco rotation methods". "Undoubtedly, the tobacco expansion programme has helped to upgrade the standard of living for the rural farmers through a boost in local income which tobacco provides", the 1991 study reports. My own analysis of the ecological and social impact of tobacco is presented below. The findings are based on field visits to the tobacco-growing areas of the Western and Nyanza provinces.

Trees for tobacco or for cash? BAT Kenya afforestation

"From the start of the tobacco expansion program, the company (BAT) was aware of the need for tobacco farmers to grow their own wood fuel for tobacco curing, in order not to deplete the scarce indigenous wood fuel stock

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in Kenya", reports the introductory statement in BAT Kenya's afforestation programme.[2]

BAT established 11 tree nurseries to provide free seedlings to farmers in all growing areas. According to an "independent audit" carried out in 1987 by the Forestry Department of the Moi University in Eldoret, 13 million trees planted were surviving to provide wood for future tobacco curing and domestic needs.[2] According to the latest company pronouncements via advertisements, the total number of surviving trees is 31 million. My survey has established that, while the afforestation may have noble aims, it has largely failed to achieve the desired effect.

The case of Malakisi

The Malakisi area straddles the Western Province districts of Busia and Bungoma. The main tobacco grown here is fire cured. This is one of the areas where the BAT-sponsored afforestation campaign appears to be quite successful. Most of the land beside the roads leading to neighbouring Ugandan districts is now forested. The majority of trees are exotic, including cypress and the much-criticised eucalyptus, blamed for draining too much water from the soil. Indigenous trees that are ecologically suited to the region have been severely reduced in numbers. While in Malakisi, Bungoma farmers now use up to 45% wood fuel from their BAT-established woodlots, there is little doubt that few of these are being utilised in the Busia side.

Many trees have either died or are stunted in heavy weed undergrowth. The reason for this is that tobacco growing is too time-consuming to allow time to care for trees. Moreover, indigenous trees hardly ever require nurture, unlike exotic species such as cypress. Indigenous trees as far away as the slopes of Mount Elgon (approximately 30 km away) have been destroyed.

A further adverse consequence is that swamps and riverine vegetation have been cleared to provide space for tobacco seedlings, which require extensive watering and therefore proximity to rivers. With more and more land coming under tobacco cultivation, and the new trees taking between 15 and 20 years to be of real use, deforestation continues despite efforts at afforestation.

Cheap accommodation for the all-year contraband trade boom at Malaba and Busia towns on the border with Uganda has attracted pioneer afforestation enthusiasts. "It is true that you see many trees, but try felling any for fuel and you will see what happens to you", was an opinion expressed at Chakol, Busia.

While eucalyptus is popular for building and roofing, cypress has proved popular for home fencing. "We do not sign any contracts committing us to use BAT-sponsored trees for tobacco curing, so that we can use the trees for whatever purpose is suitable", says Chakol farmer Juvenalis Owino.

The educated Malakisi farmers – mainly primary school teachers like Frederick Omuse of Amagoro – insist that there is no way that BAT can compensate for deforestation when farmers cut down trees as old as their parents and replace them with others that they cut down within a decade. Malakisi farmers estimate that five stacks of wood of six-by-two metres are necessary to cure one acre of tobacco. Ten trees averaging 15 years of age are required per stack, says Omuse.

The case of Migori/Homa Bay

Rangwe Division has hardly any indigenous tree cover, although the nearby Taranganya area has some remaining trees. There has also been some expansion of the BAT plantation. The new fuel-efficient MK II flue-curing furnace is now in use. According to BAT's divisional leaf manager for Kuria Division, Phineas Mavindi, the furnace had proved popular with farmers as it consumes half the quantity of wood fuel used by the older MK I. The old kiln remains in use on many farms, although no statistics are available concerning the extent of its use. Another general observation in Homa Bay was that farmers were reluctant to invest in the new furnace as they feared increased expense.

Of even greater concern is the fact that, because of extensive funding of tobacco production and processing, BAT appears unable to compete in pricing with a new entrant, Mastermind Tobacco Kenya Limited, based at Nakuru. Mastermind has managed to pay farmers more due to lower operational costs and is attracting many farmers, but without the provision of free tree seedlings. Spurred on by higher prices, farmers who grow more tobacco and have little time to cultivate trees, deplete forest reserves more rapidly. However, Mastermind's Buying Operations Manager for Migori District said that while his company has yet to launch an afforestation campaign, it is believed that by offering higher prices, less tobacco of a higher value would be grown, thus reducing the pressure on the environment.

Complaints have also been received that tobacco farmers pollute the water through a combination of siltation, water-insoluble fertilisers, and pesticides. Apart from Orthene, which is 75% water soluble, and which is used both in riverine nurseries and in the field, the use of dieldrin, a restricted-use pesticide, remains widespread. In 1982, *New Scientist* reported that BAT Kenya was supplying farmers with aldrin, a banned or highly restricted product in many Western countries.[3] The article reported that the seven- to eight-month growing period of tobacco requires heavy pesticide application. According to the *New Scientist* report, BAT maintains that the pesticide is legal in Kenya, while the manufacturer, Shell Agrochemicals, says that the safety of any chemicals depends on the manner of usage. Sources at the Environment Liaison Centre International (ELCI) of Nairobi told me that the chemical remains in use, but it is not clear whether it is distributed by BAT Kenya, or bought over the counter where it remains available. Left unchecked, use of pesticides and fertilisers is likely to harm villagers.

Tobacco production: taxing society and development

"When we plant tobacco in the seedbeds in early December, Malakisi 'says goodbye to friends and suspends most social activities'", says local teacher and tobacco grower, Geoffrey Waswa. Waswa, from Mukwa village, says that tobacco requires continuous nursing for, on average, nine months – from planting to delivery to the leaf-buying centres. Because seedbeds are prepared in October, farmers usually have just one month, September, for other activities. Seedbeds must be watered twice a day to maintain the right moisture levels. They must also be guarded against damage by birds and other animals. Planting, which begins in mid-March, often goes on until mid-May. First, the land is "ridged", followed by actual planting. Leaf-by-leaf checks are required and problems requiring pesticide, herbicide or fertiliser application must be diagnosed. Monitoring is continual throughout the growing season.

This work, including careful curing where heat must be monitored continuously, places a serious strain on the family. Often the whole family is mobilised at various stages, especially during the early period from making seedbeds to land preparation and planting.

In the Butonge village of Malakisi, Wycliffe Murunga, a model farmer and teacher, says that it is in seedbed care and picking and the bundling of leaves ready for curing that child labour is primarily used. "Children between 10 and 15 years appear to be more willing to do such trivial jobs with concentration", says Murunga. Unfortunately, tasks such as harvesting and curing come during the crucial second term of the school year, around June-July, when "mock examinations" are sat. Children miss school, but teachers, many of whom come from tobacco-growing families, are unable to discipline them or to take parents to task.

Men keep watch all night on the curing, where a small delay or inappropriate fire may result in heavy losses. The poorly ventilated kilns are likely to be a health hazard. It is only in South Nyanza, where poverty has resulted in high illiteracy rates, and hence abundant adult labour, that children appear to be largely spared from labouring on tobacco farms. In both Malakisi and the Nyanza district, polygamy is common among tobacco-grower families, a matter that is linked with farm labour. This is sabotaging Kenya's efforts to reduce the population growth and to improve living standards.

Tobacco and food: a complicated co-existence

According to the *Economic impact of tobacco industry in Kenya*, tobacco ranked 19th in agricultural land use, and 14th in importance in the category of temporary industrial crops. Of the total cultivated area of 5.17 million ha in 1983/84, tobacco occupied only 0.15%. But this survey established that on the average six-hectare holding in Migori District, farmers cultivated four hectares with tobacco, leaving only two hectares for all food crops.

In some cases, farmers with smaller holdings have planted all their land with tobacco, relying on tobacco income to buy food. Village leaders say that while many food crops – including maize, beans, sweet potatoes, sorghum, cassava, and millet – are still cultivated, their quality has suffered due to these crops being neglected as efforts are largely concentrated on tobacco.

While tobacco fertiliser adds nutrients to the soil, few farmers make real use of this fertility. Attracted by promises of large sums of money – in the range of US$400 per acre – many tobacco farmers initially see the inputs – loan and extension services involving rigorous supervision – as a solution to their income problems, and they abandon everything else.

One farmer told me that he believed he would be able to buy his food and so grew only tobacco. But due to this attitude, food must now be purchased from further and further afield, increasing food prices considerably.

The loans trap: low earnings – the plague of tobacco

In 1993, BAT Kenya bought fire-cured tobacco for between three and 37 shillings per kilogram (Ksh 70 = 1 US$). Flue-cured tobacco fetched between Ksh 20 and 49. The wide range between lowest and highest prices causes many tobacco farmers to have sleepless nights. The firm Mastermind paid a flat rate of Ksh 50 for all flue-cured tobacco. Mastermind, which produces only one cigarette brand, *Supermatch*, and thus has little interest in burley or fire-cured tobacco, although it has recently bought these varieties for export.

BAT has already increased prices by up to 25% for fire-cured tobacco for the 1994 season. Farmers in Malakisi say that it is rare to earn anything above Ksh 10 000 per acre of tobacco. "From the preparation of seedbeds to curing, we usually have BAT staff supervising the process", says one disgruntled farmer, "but once the crop is ready for delivery, they disappear. This is when, after deductions, you are told that your crop was worth no more than Ksh 7000".

At Oyani in Nyanza, 28-year-old Bernard Ouma, a former storeman at the local Leaf Centre, claimed that farmers sometimes had their produce rejected as low quality, but when they dumped it in frustration, BAT employed casuals to pick and grade it, and then bought it at virtually no cost. Ouma, who worked for almost five years as a casual labourer – being laid off every three months to break the continuity that would have compelled BAT to employ him – is among those farmers who have realised the entrapment of tobacco production, and have given up on it. He has cultivated his farm with sugarcane, which requires less labour, and only weight matters, not quality, he says.

Frustrated over low income, some farmers have colluded with unscrupulous field officers to receive fertilisers in excess of their needs.

This is depriving deserving farmers of fertilisers, while worsening the loan entrapment of farmers. Farmers have also complained of poor buying co-ordination, leaving their tobacco to deteriorate. In the Malakisi area, farmers are enthusiastic about the prospects of the planned Government/Commonwealth Development Corporation sugar factory at Busia. From a one-acre plot, sugarcane farmers can earn a net Ksh 50000, an amount farmer-teacher Murunga says will never be earned by a tobacco farmer before "five years of continuous toiling".

The Kuria of Migori have, however, beaten the low-price trap by insisting on selling their crop communally. This way they have gained from collective bargaining and, since the two tobacco companies cannot do without the commodity, they are usually compelled to accept the offers. In the areas under tobacco, there are alternative cash crops such as cotton and maize, but long delays are discouraging.

The future of tobacco in Kenya

Tobacco growing has increased with the entrance of Mastermind into the market. According to the firm's leaf manager, Michael Ngugi, by October the company had contracted about 2900 farmers who have planted some 1476 ha of tobacco. This area is targeted to expand to 5000 ha within two years, says Ngugi, whose firm has clashed with BAT, which claims that Mastermind is poaching its contracted farmers. In the current financial year, BAT and Mastermind have loaned Ksh 40 million and 9.25 million, respectively, to farmers. Mastermind, keen to avoid direct confrontation with BAT, has chosen to concentrate efforts on new or under-developed tobacco areas, including Kitui and Siaya districts.[4] Both areas are among the poorest in Kenya, and the pressure on woodlands to supply fuel is already intense. Worse still, Kitui, in Eastern Province, is largely semi-arid and it can already hardly cope with wood demand to sustain Kenya's US$5 million carving trade.

The ruling KANU party-owned *Kenya Times* reported on 28 October 1993 that exports, which BAT seeks to expand rapidly, included US$6.8 million from cigarettes and US$6 million from tobacco. BAT says that Kenya has the potential to export 10 million tonnes of tobacco annually, earning US$40 million at current prices. "Farmers are being sensitised on the need to increase their yields', says Tim Kaloki, the firm's leaf director.

Such a massive expansion in tobacco growing needs proper management if socio-economic and environmental consequences already mentioned are not to worsen. A plan for manpower and wood, as well as for food, would probably be the best starting point. The Kenyan population continues to grow and more land will be needed for food. It will be imperative to re-educate farmers on tobacco growing, and its effects on the environment. The farmers need to be moved from riverine nurseries, but this will be difficult without the proper development of pipe water. Farmers must also begin to grow more indigenous trees. Fortunately, projects funded by various state, donor and non-government organisations are now popularising indigenous trees.

Alternative sources of power may be necessary but it is unlikely that coal, which Kenya imports from Zimbabwe for cement making, would be an appropriate or affordable alternative.

According to the Director of the Kenya Forestry Research Institute, Dr Jeff Odera, Kenya suffered an 11000000 m^3 all-cause deficit in wood in 1985, a crisis that is expected to reach 32000000 m^3 in 2003. This would result in the loss of 250 000 ha of dense forest in a nation with only 108 million ha of forested area. Overall, a policy or masterplan on tobacco development is long overdue.

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